



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/786,466

02/25/2004

Ivan Thrall Smith

8274-020

9331

4678 7590 06/06/2008
MACCORD MASON PLLC
300 N. GREENE STREET, SUITE 1600
P. O. BOX 2974
GREENSBORO, NC 27402

EXAMINER

CHAPMAN, JEANETTE E

ART UNIT

PAPER NUMBER

3633

MAIL DATE

DELIVERY MODE

06/06/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/786,466	Applicant(s) SMITH, IVAN THRALL	
	Examiner Jeanette E. Chapman	Art Unit 3633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-20,22-27,29-43 and 45-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-20,22-27,29-43 and 45-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/30/08</u> . | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3,5-20,22-27,29-43,45-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Gebhardt et al (4464877) in view of Mulford (4659557) and ASTM E119-95a "Fire Test of Building Construction and Materials Limited Load Conditions (2 x 4 Wood Double Leaf Wall)

Gebhardt et al discloses the first and second building units of occupiable space such as a residential town home with a two hour fire resistance fire rated area separation wall and a thermal insulation layer between the layers of the separation wall; see column 6, lines 26-42 and column 8, lines 59-64.

ASTM discloses a fire rated wall construction shown in figure 1 having an area separation wall having outer membranes of gypsum board and cellulose insulation between the outer membranes. The separation wall further includes a tying structure of the horizontal "2x4" studs shown in figure 1 for connecting said fire resistance rated, area separation wall (frrasw) to possible first and second building units as those shown by Gebhardt

Art Unit: 3633

Mulford discloses a fire rated wall construction having a sheathing fire rated panels 56/58, studs 46/50 and 26 and insulation 48 between the sheathing and the studs.

Mulford further discloses a tying structure 40/44 possibly connecting the separation wall first and second units such as those suggested by Gebhardt. The tying structure may include a double plate assembly as shown in figure 5 with element 30 whereby the following modification for figures 6-8 includes a top plate 40 attached to the top edge of the fire resistance rated, area separation wall (frrasw) and a bottom plate 44 attached to the bottom edge of the frrasw. See figures 7 and 8 and corresponding text. The plates are less than 10 feet apart.

Gebhardt discloses that at least a two inch thick gypsum non-bearing partition will meet the requirements of a two hour fire resistance rating.

Mulford discloses an interior support structure.

Mulford discloses structurally independent interior vertical (wallboard panel) support members 46 and 50. The vertical members are spaced apart. The spacing has been considered a matter of choice depending on the other function characteristics to be imparted in the wall structure. The vertical members include cross bracing 22 at about mid-height of the plurality of vertical members. Mulford discloses the vertical members are spaced apart. The spacing has been considered a matter of choice depending on the other function characteristics to be imparted in the wall structure. The vertical

Art Unit: 3633

members include cross bracing 22 at about mid-height of the plurality of vertical members.

ASTM discloses structurally independent vertical wall board panel support member (see studs at 16" O.C in figure 1 and ASTM discloses physical gap 26 between said structurally independent interior support members. See figure 1 of ASTM. Stucco or paint may come in a fire resistant wallboard. One of ordinary skill in the art would have appreciated the type of wallboard commensurate with the intended function and purpose of the support structure.

In view of the above, it would have been obvious to use the separation wall between the two building units having a two hour fire resistance rating with a tying structure between the two unit separation walls to provide an effective separation wall.

ASTM discloses organic thermal insulation is used for excellent insulation, mechanical strength and flame resistance. The type of organic thermal insulation has been considered a matter of choice; the selection of any one type has not been viewed as critical. No criticality has been shown for using any one type. One of ordinary skill in the art would have appreciated using any type commensurate with the intended function and purpose of the separation wall.

.Regarding the limitation in the claims preamble of the area separation wall rated for two hours at about 75% design load: The limitation lacks criticality and applicant has not

shown that measurements outside the above limitation do not function. One of ordinary skill in the art would have appreciated that a fire resistance rating varies with materials and the weight of the materials employed.

Response to Arguments

Applicant's arguments with respect to claims 1-3,5-20,22-27,29-43,45-48 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeanette E. Chapman whose telephone number is 571-272-6841. The examiner can normally be reached on Mon.-thursday, 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Glessner can be reached on 571-272-6843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeanette E Chapman/

Application/Control Number: 10/786,466
Art Unit: 3633

Page 6

Primary Examiner, Art Unit 3633
